WHAT IS CLAIMED IS:

1. An image processing method comprising the steps of:

generating a road image by photographing a road on which a vehicle is traveling;

performing a brightness averaging process of the road image;

filtering the road image having undergone the brightness averaging process to detect lane markers;

performing an inverse perspective process on the filtered road image;

compressing the road image having undergone the inverse perspective process in a vertical direction;

determining slope in the lane markers from the compressed road image;

determining a curvature in the road from the determined slope in the lane markers; and

determining a drive direction and a lateral lane deviation of the vehicle.

2. The method of claim 1 wherein the brightness averaging process is realized by exchanging a brightness of portions having a value less than an average brightness value of a photographed road image with the average brightness value.

3. The method of claim 1 further comprising the steps of:

determining vehicle speed and driver intentions; and

controlling steering of the vehicle based on vehicle speed, driver intentions, and an amount of lane deviation of the vehicle.

12